

Amendments to the Claims:

1. - 6. (Cancelled)

7. (Currently amended) The improvement as claimed in claim 21 [4], further comprising a preloading mechanism for urging the planar seal engagement surface and the planar housing engagement surface into engagement with each other.

8. (Original) The improvement as claimed in claim 7 wherein the preloading mechanism is comprised of at least one spring which is retained by the seal housing.

9. (Cancelled)

10. (Currently amended) The improvement as claimed in claim 24 [9] wherein the seal element is comprised of a resilient compressible material.

11. - 15. (Cancelled)

16. (Currently amended) The improvement as claimed in claim 24 [9], further comprising a preloading mechanism for urging the planar seal engagement surface and the planar housing engagement surface into engagement with each other.

17. (Original) The improvement as claimed in claim 16 wherein the preloading mechanism is comprised of at least one spring which is retained by the seal housing.

18. (Cancelled)

19. (Currently amended) The improvement as claimed in claim 27 [48] wherein the seal assembly is incorporated into a drilling apparatus so that the seal assembly isolates the lubricating fluid on the second side of the seal assembly from a drilling fluid on the first side of the seal assembly.

20. (Previously added) The improvement as claimed in claim 19 wherein the drilling apparatus provides for pressure balancing so that a borehole pressure on the first side of the seal assembly is transmitted to the second side of the seal assembly and so that the fluid pressure is comprised of the borehole pressure.

21. (New) In a seal assembly for sealing with a rotatable component so that the seal assembly defines a first side of the seal assembly and a second side of the seal assembly and so that the first side is sealed from the second side by the seal assembly, the component defining a longitudinal axis of rotation and the component extending through the seal assembly between the first side and the second side of the seal assembly extending within the seal assembly and defining a longitudinal axis of rotation, the seal assembly comprising a seal element retained within by a seal housing, wherein one of the seal element and the seal housing is comprised of a compressible material, wherein the seal element is comprised of a planar seal engagement surface, and wherein the seal housing is comprised of a planar housing engagement surface for engaging the planar seal engagement surface, the improvement comprising:

- (a) one of the planar seal engagement surface and the planar housing engagement surface being comprised of the compressible material;
- (b) the other of the planar seal engagement surface and the planar housing engagement surface being oriented in a plane normal to the longitudinal axis of rotation of the component extending within the seal assembly and defining a depression therein for providing an isolated gap between the planar seal engagement surface and the planar housing engagement surface when the planar seal engagement surface and the planar housing engagement surface are engaged, for receiving the compressible material to restrain movement of the seal element relative to the seal housing, and wherein the depression is comprised of a plurality of substantially parallel circumferential grooves; and
- (c) the seal element being exposed to a fluid pressure on the second side of the seal assembly such that an engagement force is exerted between the planar seal engagement surface and the planar housing engagement surface in order to press the

compressible material into the depression and thereby restrain movement of the seal element relative to the seal housing.

22. (New) In a seal assembly for sealing with a rotatable component so that the seal assembly defines a first side of the seal assembly and a second side of the seal assembly and so that the first side is sealed from the second side by the seal assembly, the component defining a longitudinal axis of rotation and the component extending through the seal assembly between the first side and the second side of the seal assembly extending within the seal assembly and defining a longitudinal axis of rotation, the seal assembly comprising a seal element retained within by a seal housing, wherein one of the seal element and the seal housing is comprised of a compressible material, wherein the seal element is comprised of a planar seal engagement surface, and wherein the seal housing is comprised of a planar housing engagement surface for engaging the planar seal engagement surface, the improvement comprising:

- (a) one of the planar seal engagement surface and the planar housing engagement surface being comprised of the compressible material;
- (b) the other of the planar seal engagement surface and the planar housing engagement surface being oriented in a plane normal to the longitudinal axis of rotation of the component extending within the seal assembly and defining a depression therein for providing an isolated gap between the planar seal engagement surface and the planar housing engagement surface when the planar seal engagement surface and the planar housing engagement surface are engaged, for receiving the compressible material to restrain movement of the seal element relative to the seal housing, and wherein the depression is comprised of a plurality of substantially parallel and concentric circumferential grooves; and
- (c) the seal element being exposed to a fluid pressure on the second side of the seal assembly such that an engagement force is exerted between the planar seal engagement surface and the planar housing engagement surface in order to press the compressible material into the depression and thereby restrain movement of the seal element relative to the seal housing.

23. (New) In a seal assembly for sealing with a rotatable component so that the seal assembly defines a first side of the seal assembly and a second side of the seal assembly and so that the first side is sealed from the second side by the seal assembly, the component defining a longitudinal axis of rotation and the component extending through the seal assembly between the first side and the second side of the seal assembly extending within the seal assembly and defining a longitudinal axis of rotation, the seal assembly comprising a seal element retained within by a seal housing, wherein one of the seal element and the seal housing is comprised of a compressible material, wherein the seal element is comprised of a planar seal engagement surface, and wherein the seal housing is comprised of a planar housing engagement surface for engaging the planar seal engagement surface, the improvement comprising:

- (a) one of the planar seal engagement surface and the planar housing engagement surface being comprised of the compressible material;
- (b) the other of the planar seal engagement surface and the planar housing engagement surface being oriented in a plane normal to the longitudinal axis of rotation of the component extending within the seal assembly and defining a depression therein for providing an isolated gap between the planar seal engagement surface and the planar housing engagement surface when the planar seal engagement surface and the planar housing engagement surface are engaged, for receiving the compressible material to restrain movement of the seal element relative to the seal housing, and wherein the depression is comprised of a plurality of substantially parallel and concentric circumferential grooves, wherein each of the grooves extends for a length equal to the circumference of the other of the planar seal engagement surface and the planar housing engagement surface; and
- (c) the seal element being exposed to a fluid pressure on the second side of the seal assembly such that an engagement force is exerted between the planar seal engagement surface and the planar housing engagement surface in order to press the compressible material into the depression and thereby restrain movement of the seal element relative to the seal housing.

24. (New) In a seal assembly for sealing with a rotatable component so that the seal assembly defines a first side of the seal assembly and a second side of the seal assembly and so that the first side is sealed from the second side by the seal assembly, the component defining a longitudinal axis of rotation and the component extending through the seal assembly between the first side and the second side of the seal assembly extending within the seal assembly and defining a longitudinal axis of rotation, the seal assembly comprising a seal element retained within by a seal housing, wherein the seal element is comprised of a compressible material, wherein the seal element is comprised of a planar seal engagement surface, and wherein the seal housing is comprised of a planar housing engagement surface for engaging the planar seal engagement surface, the improvement comprising:

- (a) the planar seal engagement surface being comprised of the compressible material;
- (b) the planar housing engagement surface being oriented in a plane normal to the longitudinal axis of rotation of the component extending within the seal assembly and defining a depression therein for providing an isolated gap between the planar seal engagement surface and the planar housing engagement surface when the planar seal engagement surface and the planar housing engagement surface are engaged, for receiving the compressible material to restrain movement of the seal element relative to the seal housing, and wherein the depression is comprised of a plurality of substantially parallel circumferential grooves; and
- (c) the seal element being exposed to a fluid pressure on the second side of the seal assembly such that an engagement force is exerted between the planar seal engagement surface and the planar housing engagement surface in order to press the compressible material into the depression and thereby restrain movement of the seal element relative to the seal housing.

25. (New) In a seal assembly for sealing with a rotatable component so that the seal assembly defines a first side of the seal assembly and a second side of the seal assembly and so that the first side is sealed from the second side by the seal assembly, the component defining a longitudinal axis of rotation and the component extending through the seal assembly between the first side and the second side of the seal assembly extending within the seal assembly and defining a longitudinal axis of rotation, the seal assembly comprising a seal element retained within by a seal housing, wherein

the seal element is comprised of a compressible material, wherein the seal element is comprised of a planar seal engagement surface, and wherein the seal housing is comprised of a planar housing engagement surface for engaging the planar seal engagement surface, the improvement comprising:

- (a) the planar seal engagement surface being comprised of the compressible material;
- (b) the planar housing engagement surface being oriented in a plane normal to the longitudinal axis of rotation of the component extending within the seal assembly and defining a depression therein for providing an isolated gap between the planar seal engagement surface and the planar housing engagement surface when the planar seal engagement surface and the planar housing engagement surface are engaged, for receiving the compressible material to restrain movement of the seal element relative to the seal housing, and wherein the depression is comprised of a plurality of substantially parallel and concentric circumferential grooves; and
- (c) the seal element being exposed to a fluid pressure on the second side of the seal assembly such that an engagement force is exerted between the planar seal engagement surface and the planar housing engagement surface in order to press the compressible material into the depression and thereby restrain movement of the seal element relative to the seal housing.

26. (New) In a seal assembly for sealing with a rotatable component so that the seal assembly defines a first side of the seal assembly and a second side of the seal assembly and so that the first side is sealed from the second side by the seal assembly, the component defining a longitudinal axis of rotation and the component extending through the seal assembly between the first side and the second side of the seal assembly extending within the seal assembly and defining a longitudinal axis of rotation, the seal assembly comprising a seal element retained within by a seal housing, wherein the seal element is comprised of a compressible material, wherein the seal element is comprised of a planar seal engagement surface, and wherein the seal housing is comprised of a planar housing engagement surface for engaging the planar seal engagement surface, the improvement comprising:

- (a) the planar seal engagement surface being comprised of the compressible material;

- (b) the planar housing engagement surface being oriented in a plane normal to the longitudinal axis of rotation of the component extending within the seal assembly and defining a depression therein for providing an isolated gap between the planar seal engagement surface and the planar housing engagement surface when the planar seal engagement surface and the planar housing engagement surface are engaged, for receiving the compressible material to restrain movement of the seal element relative to the seal housing, and wherein the depression is comprised of a plurality of substantially parallel and concentric circumferential grooves, wherein each of the grooves extends for a length equal to the circumference of the planar housing engagement surface; and
- (c) the seal element being exposed to a fluid pressure on the second side of the seal assembly such that an engagement force is exerted between the planar seal engagement surface and the planar housing engagement surface in order to press the compressible material into the depression and thereby restrain movement of the seal element relative to the seal housing.

27. (New) In a seal assembly for sealing with a rotatable component so that the seal assembly defines a first side of the seal assembly and a second side of the seal assembly and so that the first side is sealed from the second side by the seal assembly, the component defining a longitudinal axis of rotation and the component extending through the seal assembly between the first side and the second side of the seal assembly extending within the seal assembly and defining a longitudinal axis of rotation, the seal assembly comprising a seal element retained within by a seal housing, wherein one of the seal element and the seal housing is comprised of a compressible material, wherein the seal element is comprised of a planar seal engagement surface, and wherein the seal housing is comprised of a planar housing engagement surface for engaging the planar seal engagement surface, the improvement comprising:

- (a) one of the planar seal engagement surface and the planar housing engagement surface being comprised of the compressible material; and
- (b) the other of the planar seal engagement surface and the planar housing engagement surface being oriented in a plane normal to the longitudinal axis of rotation of the

component extending within the seal assembly and defining a depression therein for providing an isolated gap between the planar seal engagement surface and the planar housing engagement surface when the planar seal engagement surface and the planar housing engagement surface are engaged, for receiving the compressible material to restrain movement of the seal element relative to the seal housing; and

(c) the seal element being exposed to a fluid pressure on the second side of the seal assembly such that an engagement force is exerted between the planar seal engagement surface and the planar housing engagement surface in order to press the compressible material into the depression and thereby restrain movement of the seal element relative to the seal housing, wherein the fluid pressure on the second side of the seal assembly is provided by a lubricating fluid.